



ELIXIR and EOSC



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www.elixir-europe.org



Establish EOSC-Life by publishing data and tools for cloud use

- Health and Food RI are **distributed with** many hundred partner facilities across Europe
- Health and Food RI have large community of tools developers across Europe



RI data (distributed over facilities)



Publish FAIR life science data in EOSC



Ecosystem of innovative tools in EOSC



Tools
Collaboratory

Enable groundbreaking data driven research in Europe by connecting life scientists to EOSC



Data Produce Cycle

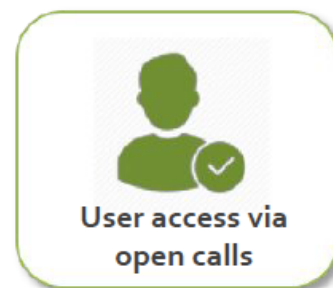


S. Candiani performing amphioxus egg microinjection

model system amphioxus

research vessel Nereis

RI Users access advanced facilities, samples and services



User access via open calls

Data Reuse Cycle



RI data experts drives data reuse via user access to:

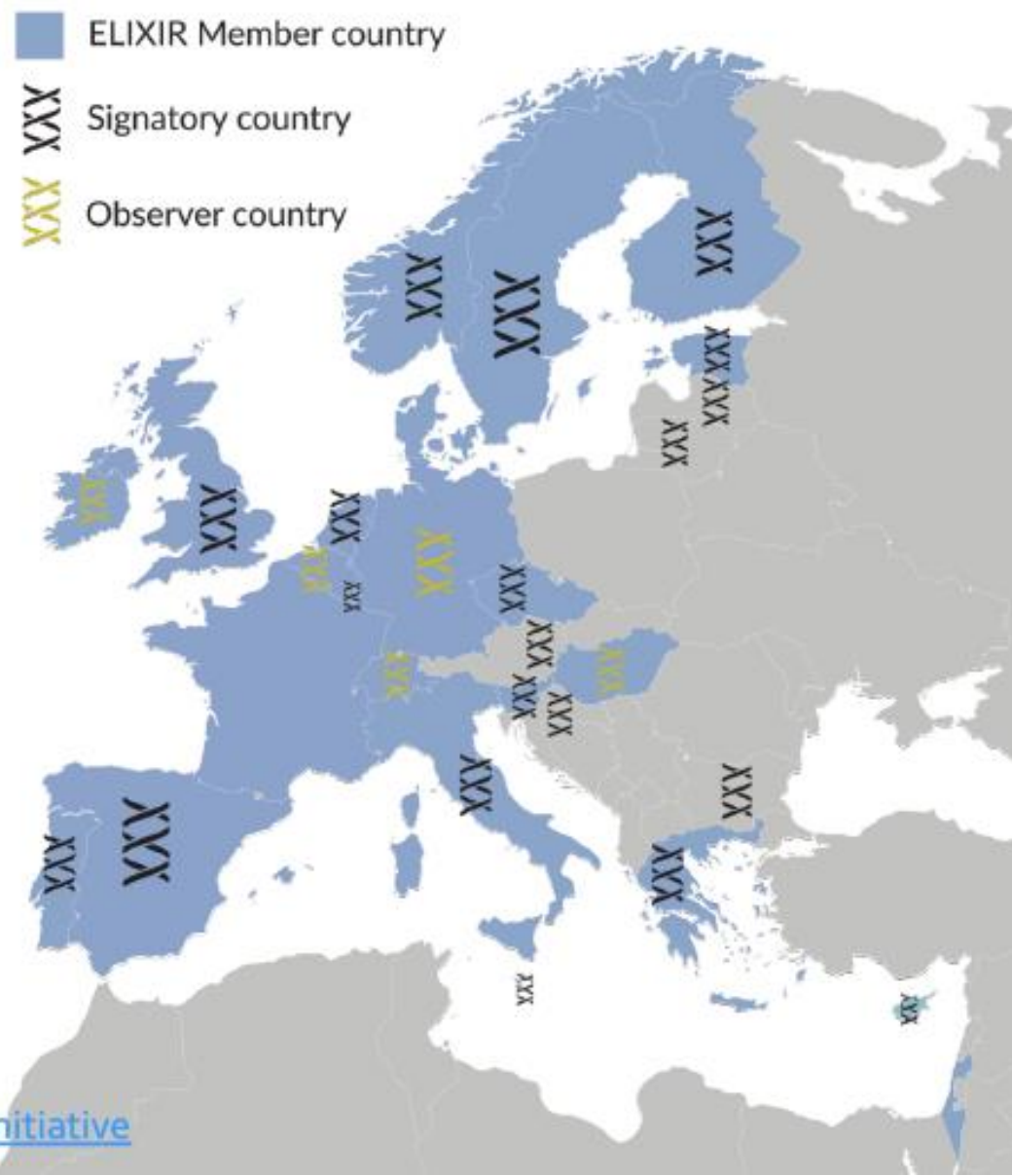
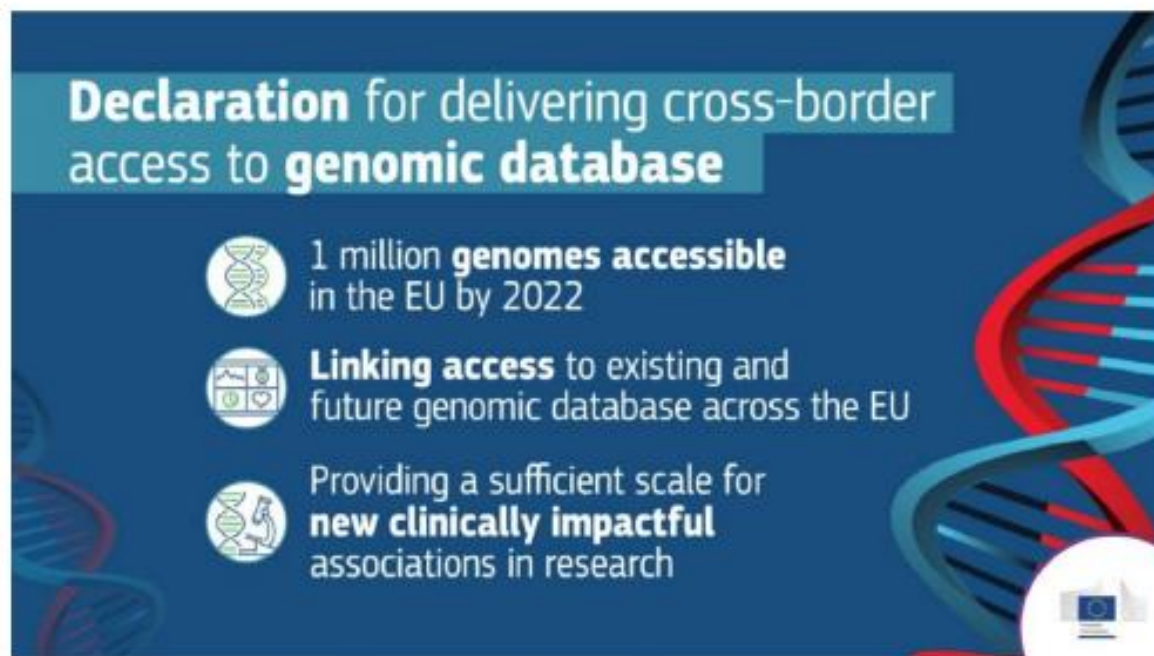
- FAIR data
- FAIR tools
- Supporting service



Supported by:

- Common Data Policies
- Common FAIR services
- Common User access
- Common Quality management and Innovation

Sharing genomic data across borders



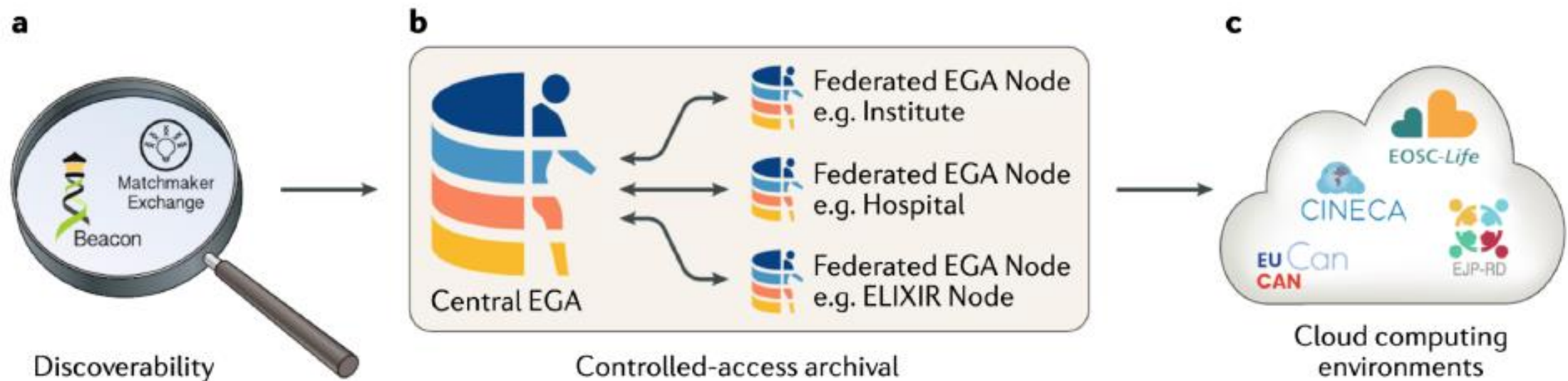
20 countries have signed the declaration, with more expected to join.

Currently signed but not ELIXIR members:
Austria, Bulgaria, Croatia, Latvia, Lithuania, Malta

<https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-initiative>

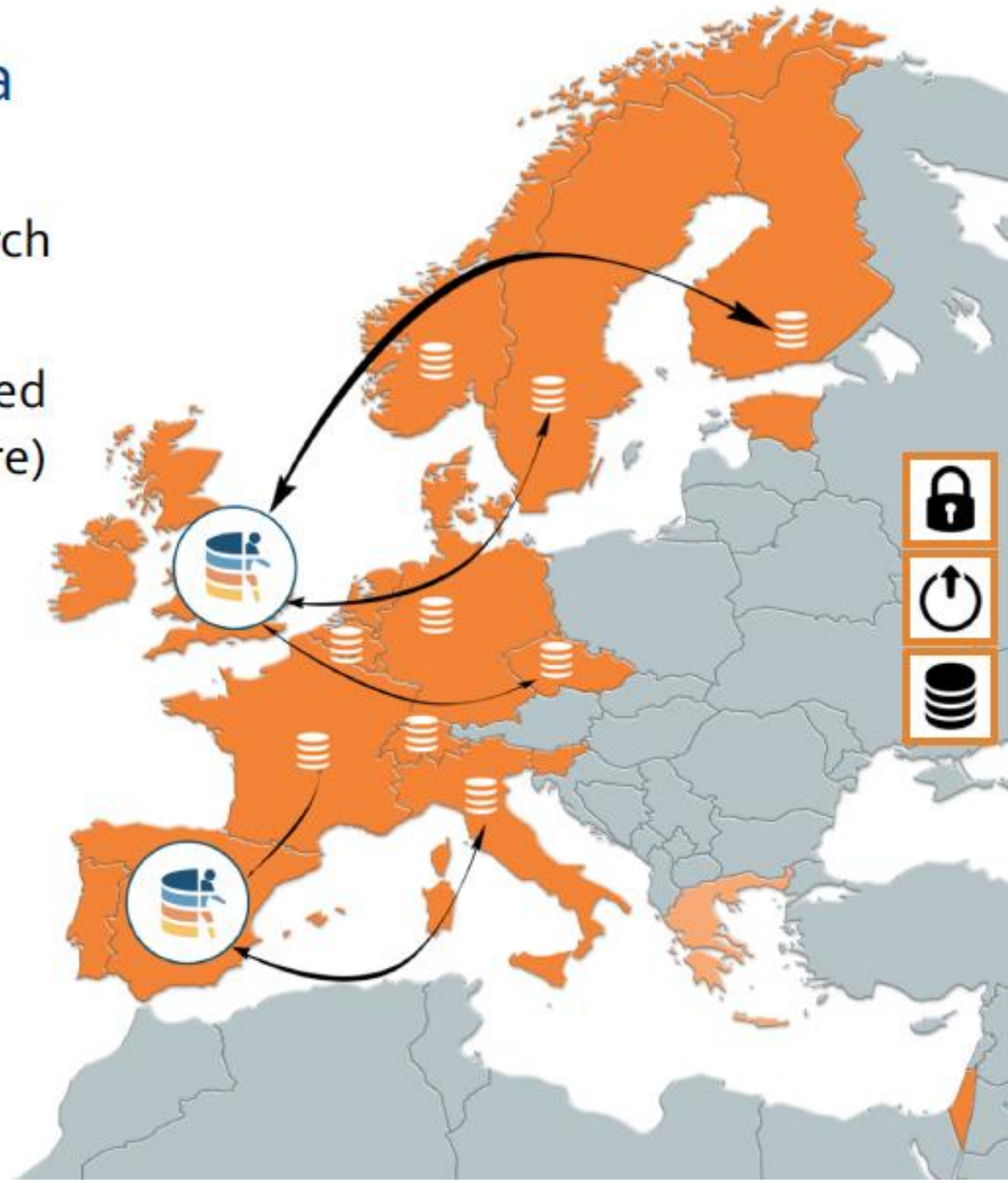
Sharing genomic data across borders - Federated systems

Federated systems - those set up as a single centralized unit within which each state or division keeps some internal autonomy.



Federation of human genome data

- Many national datasets from human research participants needs to be **stored locally**
- ELIXIR is developing a federation with shared metadata (FAIR) and local data store (secure)
 - Based on suite of interoperable, reusable, adopted, and fit-for-purpose **standards**
- Linking local EGA to national clouds and international access (ELIXIR-AAI - Authentication and Authorisation Infrastructure)
- 17/23 ELIXIR Nodes are funded in the FHD community



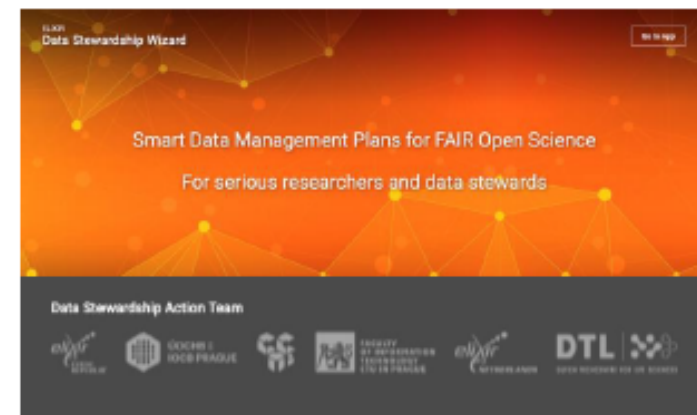
Tool: The ELIXIR Data Stewardship Wizard



- The Data Stewardship Wizard (DSW) is a web-based application for preparing smart Data Management Plans.
- It connects to additional learning resources and helps raise awareness about DS challenges.
- <https://ds-wizard.org/>

The Wizard is for:

- **Researchers:** Support in DS Planning, Raise awareness
- **Data Stewards:** Check list DS Planning
- **Experts:** Their contact details can be linked
- **Funders / Institutes:** Customize, Domain specific
- Allows tailor made DSW instances for an organisation, a Node, a company etc.
- Contact: rob.hooft@dtls.nl



Dynamic Questionnaire with Integrations

My Experiment (Common DSW Knowledge Model, 1.4.0)

(unsaved changes) Save

Current Phase

Before Submitting the Proposal

I. Design of experiment6

II. Data design and planning6

III. Data Capture/Measurement3

IV. Data processing and curation1

V. Data integration3

VI. Data interpretation1

VII. Information and insight5

Summary Report

1.b.1 Will you be using any pre-existing data (including other people's data)?

Will you be referring to any earlier measured data, reference data, or data that should be mined from existing literature? Your own data as well as data from others?

☒ Desirable: Before Submitting the Proposal

☒ Data Stewardship for Open Science: [ezi](#)

☐ a. No

☒ b. Yes

Clear answer

1.b.1.b.1 What reference data will you use?

Much of todays data is used in comparison with reference data. A genome for instance is compared with a reference genome to identify genomic variants. If you use reference data, there are several other issues that you should consider. What are the reference data sets that you will use?

☒ Desirable: Before Submitting the DMP

☒ Data Stewardship for Open Science: [quc](#)

1.b.1.b.1.a.1 Reference data:

Banana Breeding Tracker Database

[FAIRsharing](#) <https://fairsharing.org/bsg-d001258>

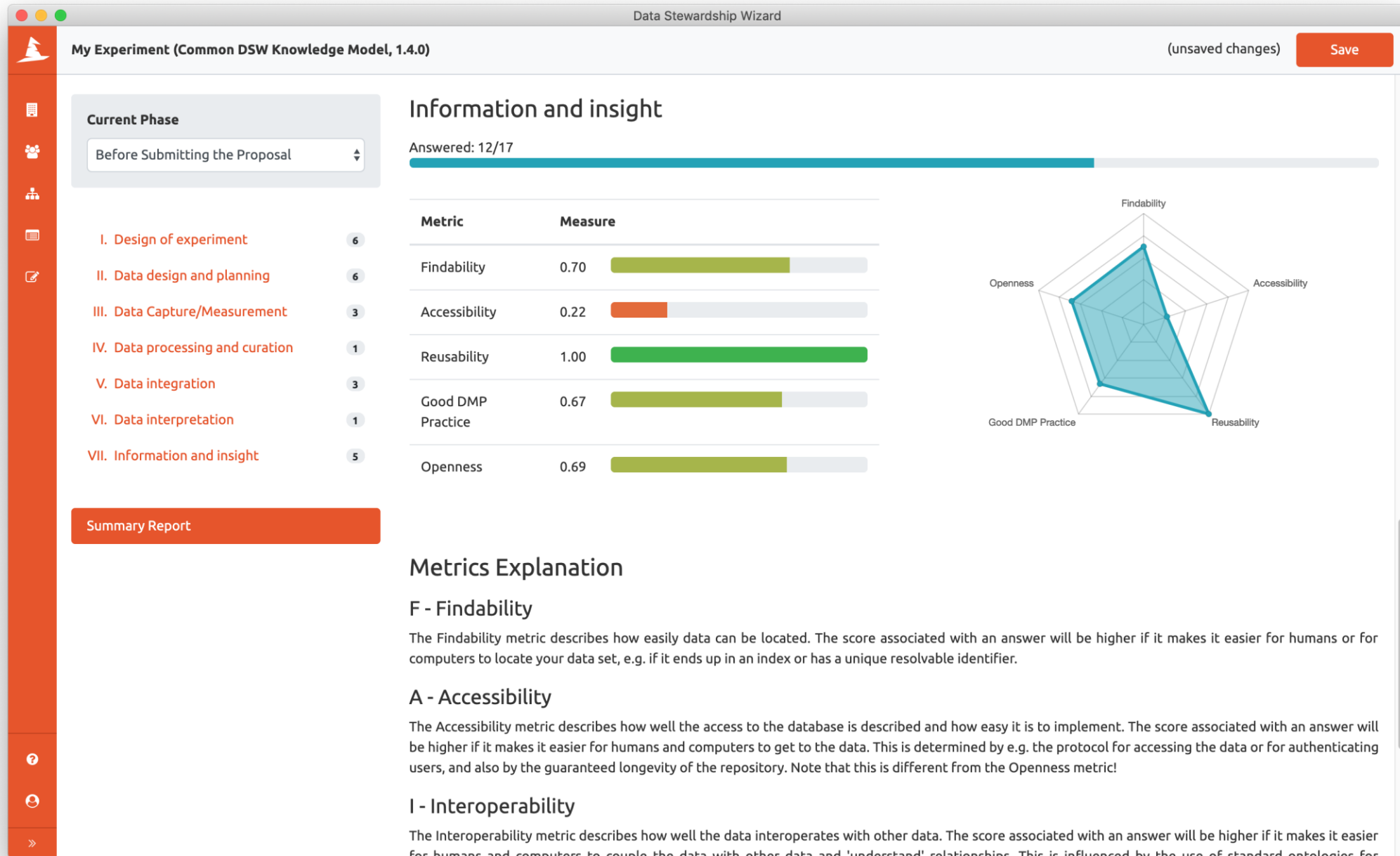
☒ Desirable: Before Submitting the DMP

1.b.1.b.1.a.2 Do you know where and how is it available?

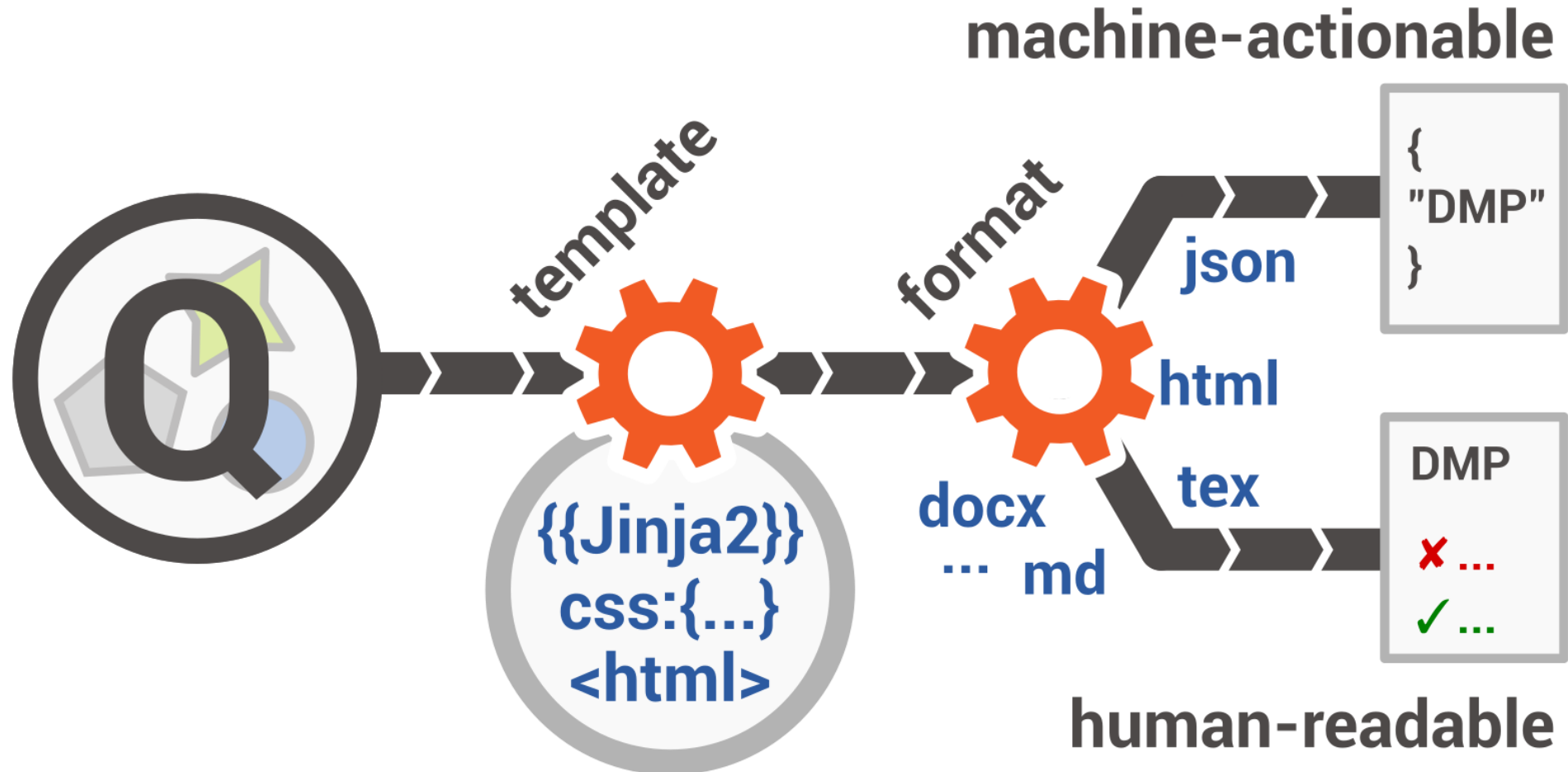
Do you know where the reference data is available, what the conditions for use are, and how to reference it?

☒ Desirable: Before Submitting the DMP

Evaluation of Planned FAIRness

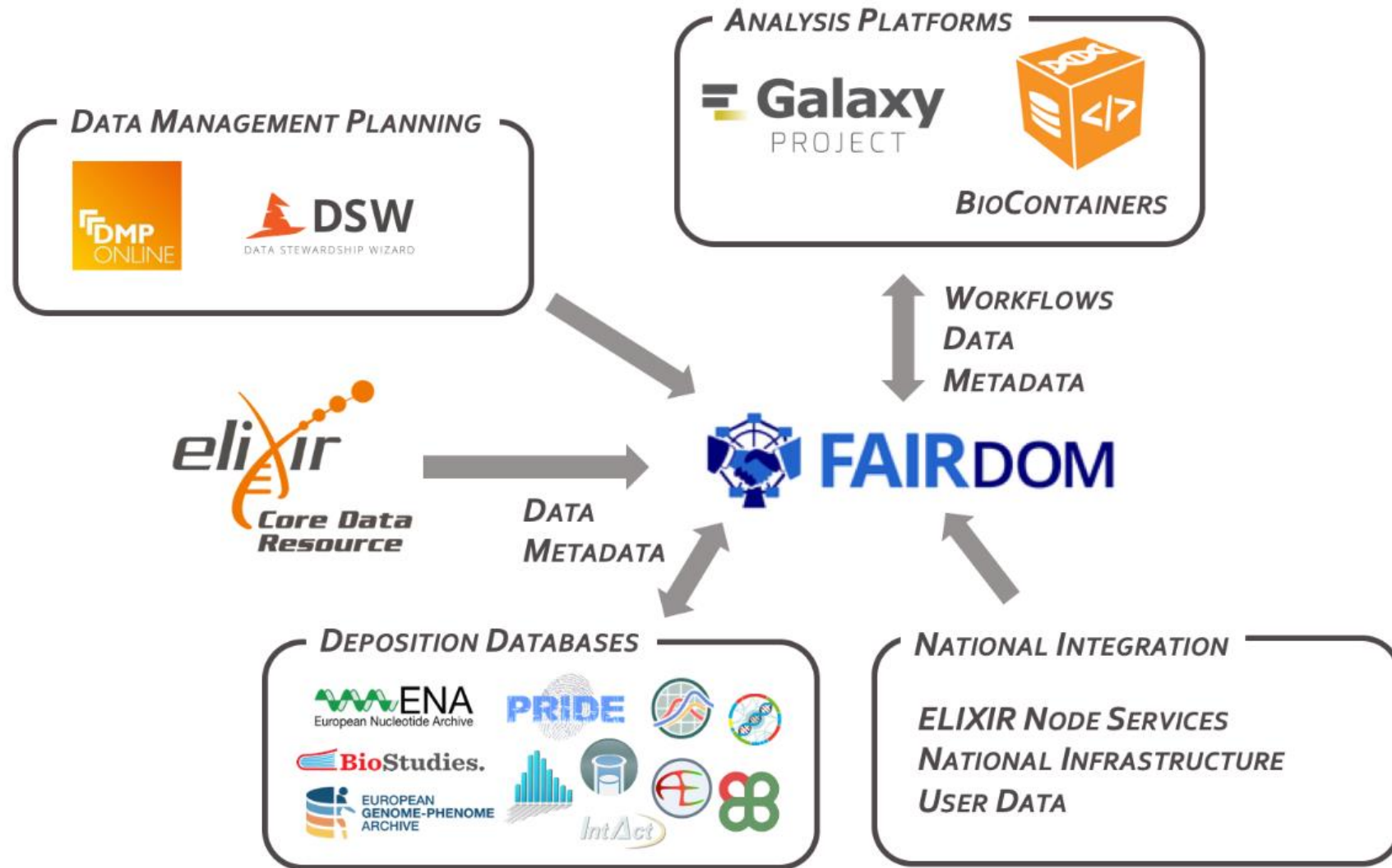


Machine Actionability



DSW Future

ELIXIR-CONVERGE: WP 3 – Common Data Management Toolkit



Thank you for your attention

